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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

SCHUTEN ELECTRONICS, INC., Individually and on Behalf of All Others Similarly Situated, Plaintiff, vs. AVX CORPORATION; KEMET CORPORATION; KEMET ELECTRONICS CORPORATION; KOA CORPORATION; KOA SPEER ELECTRONICS, INC.; PANASONIC CORPORATION; PANASONIC CORPORATION OF NORTH AMERICA; PANASONIC ELECTRONIC DEVICES CO. LTD; PANASONIC INDUSTRIAL DEVICES SALES COMPANY OF AMERICA; ROHM CO., LTD.; ROHM SEMICONDUCTOR U.S.A. LLC; SANYO ELECTRIC CO., LTD.; SANYO NORTH AMERICA CORPORATION; TDK CORPORATION; TDK-EPC CORPORATION; TDK U.S.A. CORPORATION; VISHAY INTERTECHNOLOGY, INC.; YAGEO CORPORATION; YAGEO AMERICA CORPORATION, Defendants.	Case No: **ANTITRUST CLASS ACTION COMPLAINT** JURY TRIAL DEMANDED

Plaintiff Schuten Electronics, Inc. ("Plaintiff"), individually and on behalf of a class of all others similarly situated, brings this action for treble damages under the antitrust laws of the United States against Defendants, and demands a jury trial.

I. INTRODUCTION

1. Plaintiff alleges that Defendants – the largest manufacturers of resistors in the world – conspired, combined, or contracted to fix, raise, maintain, or stabilize the prices of resistors that they sold in the United States from as early as January 1, 2003 through the present (the "Class Period"), in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

2. Resistors are a fundamental component of electrical circuits and are ubiquitous in electronic devices. Indeed, common electronic devices may contain hundreds of resistors per device. As a result, industry analysts estimate that *trillions* of resistors were sold in 2014. Thus, while the per-unit price of a resistor is quite small – usually a mere fraction of one cent – the total market for resistors is enormous. According to industry reports, in 2014 global sales of resistors totaled more than $4 billion.

3. The central function of a resistor is to control the amount of electrical current that flows through an electrical circuit. By controlling the flow of electrical current, one may adjust the volume, heat, or brightness of a given electronic device. Accordingly, resistors are critical to the operation of nearly every electronic device in operation.

4. Though most resistors are made from nothing more than an insulating material, such as ceramic rod, with copper wire, film, or carbon film wrapped around the outside, resistors account for 80 to 90% of the mass of circuit boards used in many electronic devices.

5. Because nearly all electronic devices employ resistors to function, as demand for electronics such as computers, televisions, smart phones, and kitchen appliances increases, demand for resistors also increases. Likewise, where demand for these electronic devices decreases, so too does demand for resistors.

6. In the early 2000s, an economic slowdown resulted in lower demand for electronics and a corresponding dip in demand for resistors. These conditions sparked an all-out price war in

2001 and 2002, and the per-unit price of resistors dropped 43% in a one-year period, resulting in significant losses for Defendants.

7. Beginning at least as early as January 1, 2003, Defendants conspired to cease price competition. Defendants' anticompetitive and unlawful conduct stabilized, or slowed the decrease of, prices for resistors sold in the United States during the Class Period. As a result, Plaintiff and the Class paid supra-competitive prices for resistors purchased directly from Defendants. By paying these inflated prices, which exceeded the amount Plaintiff and the Class would have paid in a competitive market, Plaintiff and the Class have been injured in their business and property as a direct and proximate cause of Defendants' unlawful actions.

8. Certain conditions in the resistors market rendered it particularly susceptible to such anticompetitive conduct. For example, resistors are interchangeable, simply designed commodities forcing sellers to compete solely on the basis of price. Moreover, the market for resistors is dominated by a small number of manufacturers – Defendants here – rendering collusion more manageable, and high barriers to entry reduce the risk that any new market entrants could undermine Defendants' conspiracy.

9. Not surprisingly, these exact market conditions, involving these exact Defendants, have resulted in allegations of anticompetitive conduct by global competition authorities and purchasers alike in the related capacitors industry.

10. Defendants fraudulently concealed their illegal conspiracy from the public and their customers, including Plaintiff and the Class, until the summer of 2015, when media organizations reported that Defendant Panasonic was seeking leniency from the DOJ for its participation in anticompetitive conduct in the resistors market.

II. PARTIES

A. Plaintiff

11. Plaintiff Schuten Electronics, Inc. is an Illinois corporation located at 200 N. Michigan Ave., Elmhurst, Illinois 60126. Plaintiff directly purchased resistors from one or more Defendants during the Class Period, and has suffered antitrust injury as a result of Defendants' anticompetitive and unlawful conduct.

B. Defendants

i. AVX

12. Defendant AVX Corporation ("AVX") is a Delaware corporation with its principal place of business located at One AVX Boulevard, Fountain Inn, South Carolina 29644. During the Class Period, AVX manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

ii. KEMET

13. Defendant KEMET Corporation ("KEMET Corp.") is a Delaware corporation with its principal place of business located at 2835 Kemet Way, Simpsonville, South Carolina 29681. During the Class Period, KEMET Corp. manufactured, sold and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates – including, without limitation, KEMET Electronics Corporation – to purchasers throughout the United States.

14. Defendant KEMET Electronics Corporation ("KEC"), a Delaware corporation, is a wholly owned subsidiary of KEMET Corp. with its principal place of business located at 2835 Kemet Way, Simpsonville, South Carolina 29681. During the Class Period, KEC – either directly or through its business units, subsidiaries, agents or affiliates – sold and distributed to purchasers throughout the United States resistors manufactured by certain of its own business units, subsidiaries, agents, or affiliates or those of its corporate parent, KEMET Corp.

15. KEMET Corp. is the holding company of KEC and, accordingly, has no business of its own. KEC is the alter ego of KEMET Corp. Although separate corporate entities, KEMET Corp. and KEC are functionally a single economic and operational entity.

iii. KOA

16. Defendant KOA Corporation ("KOA") is a Japanese corporation with its principal place of business located at 2-17-2 Midori-Cho, Fuchu-Shi, Tokyo 183-0006, Japan. KOA is one of the world's leading manufacturers of resistors, and the largest manufacturer of thick film chip resistors used in automobiles. During the Class Period, KOA manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

17. Defendant KOA Speer Electronics, Inc. ("KOA Speer") is a Delaware corporation with its principal place of business located at 199 Bolivar Drive, Bradford, Pennsylvania 16701. KOA Speer is one of the world's leading manufacturers of resistors and is a wholly owned subsidiary of KOA (collectively, the "KOA Defendants"). During the Class Period, KOA Speer manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

iv. Panasonic

18. Defendant Panasonic Corporation is a Japanese corporation with its principal place of business located at 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. Until October 1, 2008, Panasonic Corporation operated under the name of Matsushita Electric Industrial Co., Ltd. ("Matsushita"). During the Class Period, Matsushita and Panasonic (together, "Panasonic Corp.") manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

19. Defendant Panasonic Corporation of North America ("PCNA"), a wholly owned subsidiary of Panasonic Corporation, is a Delaware corporation with its principal place of business located at Two Riverfront Plaza, Newark, New Jersey 07102. During the Class Period, PCNA, either directly or through its business units, subsidiaries, agents or affiliates, sold and distributed resistors manufactured by business units, subsidiaries, agents, or affiliates of its corporate parent, Panasonic Corporation, to purchasers in the United States.

20. Defendant Panasonic Electronic Devices Co. Ltd. ("PED"), a Japanese corporation, is a wholly owned subsidiary of Panasonic Corporation. During part of the Class Period, PED had its headquarters at 1006, Oaza Kadoma, Kadoma-shi 571-8501, Osaka, Japan.

21. Defendant Panasonic Industrial Devices Sales Company of America ("PIDS") is a wholly owned subsidiary of Panasonic, and a Delaware corporation with its principal place of business located at Two Riverfront Plaza, Newark, New Jersey 07102.

22. Defendant SANYO Electric Co., Ltd. ("SANYO Co."), a Japanese corporation, is, since December 2009, a wholly owned subsidiary of Panasonic Corporation, with its principal place of business located at 15-5, Keihan-Hondori, 2-Chome, Moriguchi City, Osaka 570-8677, Japan.

During the Class Period, SANYO Co. manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to purchasers in the United States.

23. Defendant SANYO North America Corporation ("SANYO NA"), a Delaware corporation, is a wholly owned subsidiary of SANYO Co., with its principal place of business located at 2055 Sanyo Avenue, San Diego, California 82154. During the Class Period, SANYO NA – either directly or through its business units, subsidiaries, agents or affiliates – sold and distributed to United States purchasers resistors manufactured by business units, subsidiaries, agents or affiliates of its corporate parent, SANYO Co.

24. Defendants Panasonic Corp., PCNA, PED, PIDS, SANYO Co., and SANYO NA are together referred to herein as "Panasonic."

v. ROHM

25. Defendant ROHM Co., Ltd. ("ROHM Co.") is a Japanese corporation with its principal place of business located at 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan. During the Class Period, ROHM manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

26. Defendant ROHM Semiconductor U.S.A., LLC ("ROHM USA"), a Delaware limited liability corporation, is a subsidiary of ROHM Co. with its principal place of business located at 2323 Owen Street, Suite 150, Santa Clara, California 95054. During the Class Period, ROHM USA – either directly or through its business units, subsidiaries, agents or affiliates – sold and distributed to United States purchasers resistors manufactured by certain business units, subsidiaries, agents, or affiliates of its corporate parent, ROHM Co.

27. Defendants ROHM Co. and ROHM USA are together referred to herein as "ROHM."

vi. TDK

28. Defendant TDK Corporation is a Japanese corporation with its corporate headquarters located at Shibaura Renasite Tower, 3-9-1 Shibaura, Minato-ku, Tokyo 108-0023, Japan. During the Class Period, TDK Corporation manufactured, sold and distributed resistors either directly or through its subsidiaries, agents, or affiliates to purchasers throughout the United States.

29. TDK-EPC Corporation, a Japanese corporation, is a wholly owned subsidiary of TDK Corporation with its principal place of business located at Shibaura Renasite Tower, 3-9-1 Shibaura, Minato-ku, Tokyo 108-0023, Japan. TDK-EPC Corporation was founded on October 1, 2009 from the combination of the passive components business of TDK and EPCOS AG. During the Class Period, TDK-EPC Corporation manufactured, sold and distributed resistors either directly or through its subsidiaries, agents, or affiliates to purchasers throughout the United States.

30. Defendant TDK U.S.A. Corporation, a New York corporation, is a wholly owned subsidiary of TDK Corporation with its principal place of business located at 525 RXR Plaza, Uniondale, New York 11556. During the Class Period, TDK U.S.A. Corporation manufactured, sold and distributed resistors either directly or through its subsidiaries, agents, or affiliates to purchasers throughout the United States.

31. Defendants TDK Corporation, TDK-EPC Corporation, and TDK U.S.A. Corporation are referred to collectively herein as "TDK."

vii. Vishay

32. Defendant Vishay Intertechnology, Inc. ("Vishay") is a Delaware corporation with its principal place of business located at 63 Lancaster Avenue, Malvern, Pennsylvania 19355. During the Class Period, Vishay manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

viii. Yageo

33. Defendant Yageo Corporation ("Yageo") is a Taiwanese corporation with its principal place of business located at 3F, 233-1, Baoqiao Rd. Xindian Dist., New Taipei City 23145, Taiwan. During the Class Period, Yageo manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

34. Defendant Yageo America Corporation is a Delaware corporation with its principal place of business located at 2550 North First St., Suite 480, San Jose, CA 95131. Yageo America Corporation is a wholly owned subsidiary of Yageo (collectively, the "Yageo Defendants"). During the Class Period, Yageo America Corporation manufactured, sold, and distributed resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers.

III. CO-CONSPIRATORS AND AGENTS

35. Various other individuals, firms, and corporations, not named as defendants herein, may have participated as co-conspirators with Defendants and performed acts and made statements in furtherance of the conspiracy. Plaintiff reserves the right to name some or all of these persons as defendants.

36. Whenever this Complaint references an act, deed or transaction of any corporation, the allegation means that the corporation engaged in the act, deed or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the corporation's business or affairs.

IV. JURISDICTION AND VENUE

37. Plaintiff brings this action under Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26, to recover treble damages and costs of suit, including reasonable attorneys' fees, against Defendants for the injuries that Plaintiff and the other Class members have suffered from Defendants' violations of Section1 of the Sherman Act, 15 U.S.C. § 1.

38. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1337(a) and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15(a) and 26.

39. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a) and 22 and 28 U.S.C § 1391(b), (c) and (d) because, during the Class Period, Defendants resided, transacted business, were found, or had agents in this District, and a substantial portion of the affected interstate trade and commerce discussed below has been carried out in this District.

40. This Court has personal jurisdiction over each Defendant, because each Defendant: transacted business throughout the United States, including in this District; sold resistors throughout the United States, including in this District; had substantial contacts with the United States, including in this District; or committed overt acts in furtherance of their illegal scheme and price-fixing conspiracy in the United States. In addition, the conspiracy was directed at, and had the intended effect of, causing injury to persons residing in, located in, or doing business throughout the United States, including in this District.

V. INTRADISTRICT ASSIGNMENT

41. Pursuant to Civil Local Rule 3.2(c) and (e), assignment of this case to the San Jose Division of the United States District Court for the Northern District of California is proper because a substantial part of the events and omissions giving rise to Plaintiff's antitrust claims occurred within the San Jose Division.

VI. TRADE AND COMMERCE

42. The activities of Defendants and their co-conspirators, as described in this Complaint, were within the flow of and substantially affected interstate commerce.

43. During the Class Period, Defendants and their co-conspirators sold substantial quantities of resistors in a continuous and uninterrupted flow of interstate commerce, including through and into this District.

44. Defendants' conduct both within and outside the United States caused direct, substantial, and reasonably foreseeable and intended anticompetitive effects upon interstate commerce within the United States.

45. Defendants manufactured certain resistors outside the United States that were sold within the United States. These sales constitute domestic or import commerce.

46. The cumulative effect of Defendants' collusion resulted in the Class paying millions of dollars more for resistors than they otherwise would have in a competitive market. This effect was, or should have been, anticipated by Defendants as the natural and predictable consequence of their actions.

VII. FACTUAL ALLEGATIONS

A. Resistors: Types and Function

47. Resistors are electrical components that limit or regulate the flow of electrical current in an electronic circuit. Resistors can also be used to provide a specific voltage for an active device such as a transistor. The resistance is the measure of opposition to the flow of current in a resistor. More resistance means more opposition to current.

48. Resistors are considered "passive" electronic components because they regulate rather than generate electrical current and do not require electrical power to operate. Resistors are a

fundamental component of electrical circuits used in electronic devices such as televisions, cell phones, computers, and kitchen equipment. Many such devices will contain multiple – sometimes hundreds – of resistors per device.

49. Resistors can be created in a variety of ways. The most common type used in electronic devices and systems is the carbon-composition resistor. In carbon-composition resistors, fine granulated carbon is mixed with clay and hardened. The resistance depends on the proportion of carbon to clay; the higher this ratio, the lower the resistance.

50. Two other common types of resistor used in many electronic devices are thick and thin film resistors. Thick and thin film resistors are characterized by a ceramic base encompassed by a resistive layer. Thin film resistors have a thickness in the order of .1 micrometer or smaller while thick film resistors are about a thousand times thicker. Thin film resistors tend to be more accurate, have a better temperature coefficient, and be more stable. Thus, thin film resistors are used in technologies requiring a high level of precision. Conversely, thick film resistors are preferred for applications where such precision is not necessary.

51. In addition to carbon, thick film, and thin film resistors, common types of resistors include wirewound, metal film, metal oxide film, and foil resistors. Though each type of resistor has properties that may render it more or less useful for a given electronic device, all resistors have the same purpose and many manufacturers, including Defendants, manufacture multiple different types of resistors.

52. More broadly the market for resistors may be divided into linear and non-linear resistors. Linear resistors are those in which current produced is directly proportional to the applied voltage. These resistors are "linear" because comparing current versus applied voltage yields a linear relationship. Non-linear resistors are those in which the electrical current does not change linearly – or in a constant fashion – with changes in applied voltage because the current flow produces heat, which either increases (as in metals) or decreases their resistance (as in insulators).

53. Generally, linear resistors are used in consumer electronics such as computers and audio/visual devices, whereas non-linear resistors are used in larger circuits such as those used in the telecommunications or automotive industries. However, both linear and non-linear resistors are

manufactured using similar materials, and many Defendants manufacture both linear and non-linear resistors.

54. Throughout the Class Period, Defendants sold resistors to: (1) Original Equipment Manufacturers ("OEMs") who incorporate resistors into their finished products, (2) manufacturers who create or assemble electrical circuits that ultimately are incorporated into finished products manufactured by OEMs and other product manufacturers, and (3) electronic component distributors who buy resistors directly from manufacturers and resell them.

B. Early 2000s: Declining Demand for Electronics Pushes Resistors Prices Down

55. Robust economic conditions in the 1990s resulted in an explosion of demand for consumer electronics that, in turn, resulted in strong demand for resistors. However, in 2001 economic growth slowed significantly, causing a corresponding decline in demand for resistors. According to the U.S. Census Bureau figures, shipment values for resistors manufactured in the United States dropped from $981.7 million in 2000 to $712.9 million in 2001 – a 27% decline.

56. Amidst this weak economic climate, purchasers of resistors began applying significant pressure on the industry to lower prices. Global manufacturers of resistors competed vigorously for the limited demand available in the market resulting in downward pricing pressure for resistors. Indeed, prices for resistors fell approximately 22 percent in roughly six months. Between 2001 and 2002, prices for resistors had dropped a whopping 43% from $0.0080 per unit to about $0.0045 per unit.

57. This had a devastating impact on Defendants' profitability, forcing some manufacturers to sell components at or below the cost of production. Facing significant losses, resistor manufacturers were forced to reduce work forces, consolidate, close plants, and reduce capacity. During this period, many manufacturers of passive electronic components such as resistors were operating at between 60 and 70% capacity, while vendors were "swimming in excess supply and fighting for contracts" according to a 2002 EBN report.

C. 2003: Defendants Conspire to Stabilize Prices for Resistors

58. Despite these weak economic conditions, Defendants had one thing going for them: purchasers of resistors were almost always committed to inflexible production or delivery deadlines

to their respective customers, and accordingly could be forced to accept a price increase in order to avoid production delays or customer dissatisfaction.

59. And thus, a plan was hatched: beginning in 2003, Defendants agreed to restrict competition as to their respective resistors to slow or halt price erosion.

60. Defendants arrived at this plan and reached agreement via a series of written, electronic, and oral communications amongst themselves that took place during the time just preceding the conspiracy and throughout the Class Period.

61. Following the conspiracy's commencement, Defendants remained in regular contact regarding prices, sales, and lead-times for resistors. Defendants regularly exchanged sensitive information – including data and forward-looking predictions for the market – to ensure the conspiracy's success.

62. Specifically, Defendants used their involvement in various trade associations as a cover to meet and discuss their conspiracy. For example, Defendants are members of the Passive Components Market Services ("PCMS") trade organization. At PCMS meetings, Defendants exchanged information concerning resistors, capacitors, and other passive components. PCMS meetings happened regularly during the Class Period, and were held in the United States. For example, a PCMS meeting occurred in Chicago in January 2008.

63. Additionally, Defendants KOA, Panasonic, ROHM, and Vishay met as part of the Electronic Components Industry Association ("ECIA"), located in Alpharetta, Georgia. As with PCMS, ECIA meetings provided the perfect cover for Defendants to meet in order to further their conspiracy.

64. For example, in the Spring of 2003, key manufacturers gathered together at the Electronic Industries Alliance's annual Spring Gala in Washington, D.C. where, according to industry analyst Dennis Zogbi, they had "the opportunity to exchange information, network socially, find out about trends that will define the future, and try to gain a competitive advantage in navigating choppy business waters."

65. Additionally, Defendants met and exchanged forward looking information regarding sales and revenues that provided further assurances regarding one another's compliance with the

conspiracy. For example, according to industry analyst Dennis M. Zogbi, representatives from Defendants EPCOS (now owned by TDK), Vishay, Kemet, and KOA met in Nice, France to discuss "fourth quarter revenues for these companies in the United States and European markets" in the fourth quarter of 2004. During those discussions, "each agreed that Asian sales would be up on a quarter-to-quarter basis (emphasized most notably by KOA and EPCOS)." In addition to these trade association meetings, Defendants possess numerous informal links, co-ventures, or partnerships that provide opportunities to conspire and share competitively sensitive information.

D. Defendants' Conspiracy Worked: Prices Stabilized and Profitability Returned

66. Defendants' conspiracy had its intended effect: pricing pressure for resistors was decreased and Defendants once again enjoyed significant profitability. In 2003, Defendants effectively maintained prices at an average per unit price of approximately $ 0.0045. By 2014, Defendant Vishay's resistors unit, for example, enjoyed revenues totaling $721 million – an 11.6% increase from the prior year. Likewise, Defendant KOA is estimated to have had resistors sales worth $440 million in 2014 – a 14.3% increase from the prior year. Similarly, Defendants ROHM and Panasonic enjoyed 13.9% and 9% increases in 2014 revenue for resistors compared to the prior year.

67. Moreover, as a result of their conspiracy, Defendants mitigated the impact of the 2008 recession, ensuring that the significant economic losses of 2008 did not result in the enormous price cuts experienced in 2001. By comparison, prices in 2001 fell by nearly 43% whereas in 2008 – a much more significant economic downturn than that experienced in 2001 – prices fell by only a slight 7% for linear resistors according to *Passive Electronic Components Market Report 2014-2019* (Paumanok Publications, Inc. March 2014).

VIII. CHARACTERISTICS OF THE RESISTORS MARKET

68. The structure and characteristics of the resistors market is particularly conducive to a price-fixing agreement, rendering allegations of collusion particularly plausible. These factors are discussed below.

A. Industry Concentration

69. A high degree of concentration facilitates coordination among co-conspirators. The fewer competitors in a market, the easier it is for those competitors to collude. The resistors market is highly concentrated.

70. Defendants control the resistors market. For example, in 2001 just prior to the start of the conspiracy, key Defendants controlled 64% of the market for resistors. Additionally, since the start of the conspiracy, Defendant Vishay – the largest manufacturer of resistors in the world – has expanded its dominance through a series of acquisitions including the acquisitions of Alpha (2005), Phoenix (2006), Huntington (2013), and VCB (2013).

71. Defendants possessed sufficient market share to impose price increases and ensure price stabilization during the Class Period. All non-Defendant fringe competitors were too small to meet the production needs of key customers and thus these fringe competitors were unable to undercut Defendants' prices.

B. High Barriers to Entry

72. The presence of significant entry barriers to potential competitors that could otherwise cause the incumbents to reduce their prices helps facilitate coordination among co-conspirators.

73. The barriers to entry for new market participants are quite high. New market entrants would need substantial start-up capital – likely exceeding hundreds of millions of dollars – in addition to access to production technology, raw materials, and sufficient supply chain commitments to warrant such a significant outlay of capital.

74. The resistors manufacturing industry is a mature one dominated by established corporations, most having multinational operations, global market reach, and diverse product portfolios of all types of passive electrical components. These companies – Defendants here – have significant experience in the global resistors industry, access to capital necessary to ramping up production, and established reputations with both sellers of raw materials and purchasers of finished resistors. Moreover, as the largest manufacturers of resistors, Defendants have achieved economies of scale that enable them to manufacture larger resistors at lower per unit costs.

75. For example, because Defendants manufacture a broad array of resistors, purchasers may obtain all of their needed resistors from one manufacturer. According to industry analyst Dennis M. Zogbi, "[t]he compartmentalized passive component solution (one-stop shopping) is extremely beneficial to a large-scale customer, especially when they do not have to pay distributor mark-ups." Smaller manufacturers and new market entrants cannot easily compete with Defendants' large product portfolios allowing Defendants to continue dominating the market.

C. Inelastic Demand

76. Price elasticity of demand is the measure of responsiveness in the quantity demanded for a product as a result of change in price of the same product. Inelastic demand is a market characteristic that facilitates collusion, allowing producers to raise their prices without triggering customer substitution and lost sales revenue. Inelastic demand is another indicator that a price-fixing conspiracy would be successful.

77. As set forth above, resistors are critical to the manufacture of certain types of electrical circuits used in electronic devices. When there are few or no substitutes for a product, purchasers have little choice but to pay higher prices when prices of those products increase industry-wide. No other type of passive electrical component (such as an inductor or capacitor) would be able to serve an equivalent function and thus to satisfy production and delivery demands. Defendants' purchasers had no alternatives to resistors.

D. Interchangeable, Commodity-like Products

78. A commodity is a product that is standardized across suppliers allowing for a high degree of substitutability among different suppliers in the market. When products offered by different suppliers are viewed as interchangeable by purchasers, market participants typically compete on the basis of price rather than other attributes such as product quality, rendering it easier for participants both to agree on prices for the product and to monitor these prices.

79. Standardization is a key element in the design of electronic components such as resistors. Indeed, both the International Electrical Commission ("IEC") and American National Standards Institute ("ANSI") promulgate standards denoting resistor sizes, values, markings, and

measurement methods. Resistors are mass-produced pursuant to these standardized manufacturing processes, rendering them interchangeable.

80. Moreover, resistors of like resistance are interchangeable. Thus, even if certain aspects of a given resistor differ, so long as the amount of resistance remains constant resistors are substitutable.

81. Defendants are aware of the interchangeability of their products. Defendants have even created cross-reference guides that list competitors' resistors by product number or technical and operational specifications with a corresponding reference to those resistors offered by Defendants that are interchangeable.

82. Because resistors of like resistance are interchangeable, commodity-like products, manufacturers in a competitive market would compete largely on the basis of price. Where, as here, prices have remained stable or increased despite decreasing demand, market conditions are consistent with collusive conduct.

E. Declining Demand

83. Static or declining demand renders collusion more likely. Under normal, competitive business conditions, when faced with weak demand conditions, firms will attempt to maintain sales by taking market share from competitors via price competition. Stable or increasing prices in the face of static or declining demand are consistent with anticompetitive conduct.

84. As discussed more fully above, demand for resistors has steadily declined since the early 2000s, both as a result of declining demand for consumer electronics and also due to technological trends favoring the smaller design of such electronics that, in turn, require fewer resistors. Despite these demand conditions, prices for resistors have remained relatively stable since 2003.

F. Excess Manufacturing Capacity

85. The existence of excess manufacturing capacity tends to have a negative correlation with price, because manufacturers have the ability to steal share by lowering prices and increasing production. As witnessed in 2001, this trend is even stronger in an environment of declining demand, because manufacturers have no choice but to compete for a smaller number of potential

buyers. Price stability in an environment of excess manufacturing capacity and declining demand, is consistent with a market in which anticompetitive conduct is afoot.

86. As described in more detail above, both before and during the Class Period, Defendants possessed excess manufacturing capacity and demand for resistors has steadily declined. However, after 2003, these market conditions did not result in dramatic price reductions. To the contrary, prices often remained stable or even rose. These pricing trends are consistent with anticompetitive conduct.

G. Opportunities for Conspiring and Sharing Information

87. Defendants' membership in various trade associations and other business relationships presented many opportunities for Defendants to collude by discussing competitive information regarding their resistors both before and during the Class Period.

88. The existence industry trade associations can facilitate anticompetitive conduct by providing a pretext for competitors meet and by facilitating the exchange of sensitive company information such as pricing, product lead times, and inventory data.

89. A number of industry trade associations count Defendants among their members. For example, Defendants Panasonic, ROHM, TDK, and KOA are all members of the Japan Electronics and Information Technology Industries Association ("JEITA"), a prominent trade organization. Additionally, Defendants were also members of PCMS and ECIA. These trade associations facilitated the conspiracy by collecting and aggregating competitive information including sales in terms of dollars and units. As discussed more fully above, the aggregate data was then circulated to Defendants with a short time lag, allowing Defendants with substantial market shares to detect cheating by looking for significant shifts that could only have been caused by fellow conspiracy members with substantial market shares.

90. Defendants also attended various trade conferences that allowed them to meet without drawing attention. For example, the employees of Defendants regularly attended the Electronics Distribution Show and the Consumer Electronics Show. These shows provided numerous opportunities for Defendants to meet privately to further the conspiracy.

91. Additionally, many of the Defendants also manufactured other passive electronic components, including capacitors. These Defendants regularly met in secret to fix prices and exchange confidential non-public information, and engage in cartel activity with respect to the capacitors industry. Specifically, Defendant Panasonic has sought leniency from the U.S. Department of Justice for its role in a conspiracy to set the prices for capacitors. Panasonic has admitted that beginning at least as early as January 1, 2003, it met privately with Defendants Vishay, Rohm, AVX, Kemet, and TDK to further their conspiracy with regards to the capacitors market. These meetings provided yet another opportunity for Defendants to further their conspiracy as to resistors.

92. Finally, industry analysts provide yet another source of information for Defendants. Analysts gather and share detailed competitive information among Defendants. These analysts provide, for a fee, market data on pricing, supply, and other key indicators of market activity as well as market projections. Given the limited number of analysts that cover the resistors industry, and the high degree of concentration within the industry, those that do are often provided highly detailed information and direct access to decision-makers for the resistors manufacturers, including Defendants.

IX. COMPETITION AUTHORITIES INVESTIGATE RESISTORS INDUSTRY

93. Competition authorities in the United States have recently launched an investigation into the major participants in the resistors industry. Some sources have suggested that these investigations began in part because Defendant Panasonic approached U.S. and Chinese authorities to report its involvement in the conspiracy and seek amnesty.

94. The U.S. Antitrust Criminal Penalty Enhancement and Reform Act ("ACPERA") provides leniency benefits for a participant in a price-fixing conspiracy that voluntarily discloses its conduct to the Department of Justice ("DOJ"). According to U.S. Department of Justice guidelines, a corporate amnesty applicant must "admit its participation in a criminal antitrust violation involving price fixing, bid rigging, capacity restriction, or allocation of markets, customers, or sales or production volumes before it will receive a conditional leniency letter. A company that argues that an agreement to fix prices, rig bids, restrict capacity or allocate markets might be inferred

from its conduct but that cannot produce any employees who will admit that the company entered into such an agreement generally has not made a sufficient admission of criminal antitrust violation to be eligible for leniency. A company that, for whatever reason, is not able or willing to admit to its participation in a criminal antitrust conspiracy is not eligible for leniency." By applying for leniency through ACPERA, the cartel member believed to be Panasonic must have admitted to anticompetitive conduct in the resistors industry.

95. This is not the first time Defendants Panasonic and SANYO have acknowledged their involvement in anticompetitive conduct. Indeed, the DOJ has targeted Panasonic/SANYO several times in the last ten years for participating in price-fixing conspiracies involving automotive parts and lithium ion battery cells. As a result of these investigations, SANYO pleaded guilty for its role in a conspiracy to fix prices on cylindrical lithium ion battery cells sold worldwide for use in notebook computer battery packs, and agreed to pay a $10.731 million criminal fine. Likewise, Panasonic recently admitted its involvement in a cartel conspiracy to fix prices of switches, steering angle sensors, and automotive high intensity discharge ballasts. Panasonic agreed to pay a $45.8 million criminal fine, and a number of its executives pled guilty in exchange for limited fines and imprisonment.

96. Additionally, the EC Competition Authority has investigated Panasonic for its participation in a price-fixing conspiracy involving CRT televisions and monitors. Panasonic agreed to pay $17.3 million to settle claims brought by direct purchasers in civil litigation over Panasonic's role in a conspiracy to fix the prices of CRT televisions and monitors. Finally, Panasonic has been named as a defendant in several price-fixing suits in the United States involving TFT-LCD flat panel displays, hermetic compressors, and various automotive parts.

X. FRAUDULENT CONCEALMENT

97. Plaintiff and members of the Class did not discover, and could not have discovered through the exercise of reasonable diligence, the existence of the conspiracy alleged herein until July 2015, when foreign competition authorities began investigating the industry.

98. Because Defendants kept their conspiracy secret until at least July 2015, Plaintiff and members of the Class before that time were unaware of Defendants' unlawful conduct alleged

herein, and they did not know before that time that they were paying supra-competitive prices for resistors throughout the United States during the Class Period.

99. Defendants wrongfully concealed and carried out their conspiracy in a manner that precluded detection.

100. By its very nature, Defendants' conspiracy was inherently self-concealing.

101. Under the circumstances surrounding Defendants' pricing practices, Defendants' acts of concealment were more than sufficient to preclude suspicion by a reasonable person that Defendants' pricing was conspiratorial. Accordingly, a reasonable person under the circumstances would not have been alerted to investigate the legitimacy of Defendants' resistors prices before July 2015. Indeed, the Justice Department, with its very substantial investigative resources, did not begin investigating Defendants' conspiracy until recently.

102. Plaintiff and members of the Class could not have discovered the alleged conspiracy at an earlier date by the exercise of reasonable diligence because of the deceptive practices and techniques of secrecy employed by Defendants and their co-conspirators to avoid detection of and fraudulently conceal their conspiracy.

103. Because the alleged conspiracy was both self-concealing and affirmatively concealed by Defendants and their co-conspirators, Plaintiff and members of the Class had no knowledge of the alleged conspiracy, or of any facts or information that would have caused a reasonably diligent person to investigate whether a conspiracy existed, until July 2015, when investigations by foreign competition authorities of the resistors industry were first made publicly known.

104. None of the facts or information available to Plaintiff and members of the Class prior to July 2015, if investigated with reasonable diligence, could or would have led to the discovery of the conspiracy alleged herein prior to that date.

105. As a result of Defendants' fraudulent concealment of their conspiracy, the running of any statute of limitations has been tolled with respect to any claims that Plaintiff and members of the Class have alleged in this Complaint.

106. Defendants and their co-conspirators engaged in a successful anti-competitive conspiracy concerning resistors, which they affirmatively concealed, at least in the following respects:

(a) By communicating secretly to discuss output and prices of resistors;

(b) By agreeing among themselves not to discuss publicly, or otherwise reveal, the nature and substance of the acts and communications in furtherance of their illegal scheme;

(c) By attributing pricing to reasons other than their anticompetitive agreement; and

(d) By falsely describing the market for resistors as competitive.

107. As a result of Defendants' fraudulent concealment, all applicable statutes of limitations affecting Plaintiff's and the Class's claims have been tolled.

XI. EFFECTS OF THE CONSPIRACY

108. Because of Defendants' illegal conspiracy, Plaintiff and the Class have been injured in their business or property because they have paid more for resistors than they would have in a competitive market.

109. Defendants' unlawful contract, combination, or conspiracy has had at least the following effects:

(a) price competition in the resistors market has been artificially restrained;

(b) prices for resistors sold by Defendants have been raised, fixed, maintained, or stabilized at supra-competitive levels; and

(c) purchasers of resistors from Defendants have been deprived of the benefit of free and open competition in the resistors market.

XII. CLASS ALLEGATIONS

110. Plaintiff brings this action on behalf of itself and as a class action pursuant to Federal Rules of Civil Procedure, Rule 23 (a), (b)(2) and (b)(3), on behalf of a Class of similarly situated persons and entities, which is defined as follows:

> All persons that purchased resistors (including through controlled subsidiaries, agents, affiliates, or joint-ventures) directly from any of the Defendants, their subsidiaries, agents, affiliates or joint ventures in the United States or for delivery in

the United States from January 1, 2003 through the present (the "Class Period").

111. The following persons or entities are excluded from the Class: Defendants, Defendants' parent companies and their subsidiaries, agents or affiliates, Defendants' officers, directors, management, employees, subsidiaries, agents or affiliates, and federal governmental entities and instrumentalities of the federal government.

112. The Class encompasses persons and entities who purchased resistors directly from any of the Defendants, even if those resistors were manufactured, sold, or distributed by a given Defendant's predecessors, parents, business units, subsidiaries, affiliated entities, principals, or agents.

113. Plaintiff believes that there are hundreds of Class members located throughout the United States, the exact number and their identities being known by Defendants, making the Class so numerous and geographically dispersed that joinder of all members is impracticable.

114. Questions of law or fact common to the Class include:

(a) Whether Defendants and their co-conspirators engaged in a combination and conspiracy to restrict output and fix, raise, maintain, or stabilize the prices of resistors sold in the United States;

(b) The identity of the conspiracy's participants;

(c) The duration of the conspiracy alleged herein and the acts carried out by Defendants and their co-conspirators in furtherance of the conspiracy;

(d) Whether the alleged conspiracy violated Section 1 of the Sherman Act;

(e) Whether Defendants fraudulently concealed their conspiracy from resistors purchasers in the United States;

(f) Whether the conduct of Defendants and their co-conspirators, as alleged herein, caused injury to the business and property of Plaintiff and the other Class members;

(g) The effect of the conspiracy on the prices of resistors sold in the United States during the Class Period;

(h) The appropriate Class-wide measure of damages; and

(i) Whether Plaintiff and members of the Class are entitled to injunctive relief and, if they are, the appropriate injunctive relief in this matter.

115. These and other questions of law and fact are common to the Class and predominate over any questions affecting the Class members individually.

116. Plaintiff's claims are typical of the claims of Class members, and Plaintiff will fairly and adequately protect the interests of the Class. Plaintiff and all members of the Class are similarly affected by Defendants' wrongful conduct in violation of the antitrust laws, in that they paid artificially inflated prices for products purchased directly from Defendants. Plaintiff's claims arise out of the same common course of conduct giving rise to the claims of the other Class members. Plaintiff's interests are coincident with, and not antagonistic to, those of the other Class members.

117. Plaintiff is represented by competent counsel experienced in the prosecution of antitrust and class action litigation.

118. The prosecution of separate actions by individual members of the Class would create a risk of inconsistent or varying adjudications, establishing incompatible standards of conduct for Defendants.

119. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. The Class is readily definable. Prosecution as a class action will eliminate the possibility of repetitious litigation. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently, and without the duplication of effort and expense that numerous individual actions would engender. This action presents no difficulties in management that would preclude maintenance as a class action.

XIII. CAUSE OF ACTION

SHERMAN ACT VIOLATION § 1 15 U.S.C. § 1

(Alleged Against All Defendants)

120. Plaintiff incorporates and re-alleges each allegation set forth in the preceding paragraphs of this Complaint.

121. Beginning at least as early January 1, 2003, and continuing thereafter, Defendants and their co-conspirators, by and through their officers, directors, employees, agents, or other representatives, in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, entered into a continuing agreement, understanding, and conspiracy in restraint of trade to restrict output and to artificially raise, fix, maintain, or stabilize prices for resistors in the United States, and entered into a continuing agreement, understanding and conspiracy in restraint of trade to exchange information regarding output and production capacity that had the effect of restricting output and of fixing, raising, maintaining, or stabilizing the prices of resistors.

122. Plaintiff and the other Class members have been injured in their business and property by reason of Defendants' unlawful combination, contract, conspiracy, and agreement. Plaintiff and Class members have paid more for resistors than they otherwise would have paid in the absence of Defendants' conduct. This injury is of the type the federal antitrust laws were designed to prevent and flows from that which makes Defendants' conduct unlawful.

123. Accordingly, Plaintiff and Class members seek damages, to be trebled pursuant to federal antitrust law, and costs of suit, including reasonable attorneys' fees.

XIV. JURY DEMAND

124. Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff demands a jury trial as to all issues triable by a jury.

XV. PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays as follows:

A. That the Court determine that this action may be maintained as a class action under Rule 23(a) and (b)(3) of the Federal Rules of Civil Procedure.

B. That a declaratory judgment be entered that the contract, combination, or conspiracy, and the acts done in furtherance thereof by Defendants and their co-conspirators have violated Section 1 of the Sherman Act, 15 U.S.C. § 1.

C. That judgment be entered for Plaintiff and Class members against Defendants for three times the amount of damages sustained by Plaintiff and the Class as allowed by law.

D. That Plaintiff and the Class recover pre-judgment and post-judgment interest as

permitted by law.

E. That Plaintiff and the Class recover their costs of the suit, including attorneys' fees, as provided by law.

F. That Defendants be enjoined from continuing their participation in the alleged conspiracy.

G. For such other and further relief as is just and proper under the circumstances.

Dated: October 23, 2015

Respectfully submitted,

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